

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

**LIBERTY ENERGY SERVICES LLC,**

**Plaintiff,**

**vs.**

**PROFRAC SERVICES, LLC,  
PROFRAC MANUFACTURING, LLC,  
U.S. WELL SERVICES, LLC,  
U.S. WELL SERVICES HOLDINGS, LLC,**

**Defendants.**

**Civil Action No. 2:24-CV-00884-  
JRG-RSP**

**JURY TRIAL DEMANDED**

**PROFRAC SERVICES, LLC,  
PROFRAC MANUFACTURING, LLC,  
U.S. WELL SERVICES, LLC,  
U.S. WELL SERVICES HOLDINGS, LLC,**

**Counter-Plaintiffs,**

**vs.**

**LIBERTY ENERGY SERVICES LLC,  
LIBERTY ENERGY, INC., LIBERTY  
ADVANCED EQUIPMENT TECHNOLOGIES  
LLC**

**Counter-Defendants.**

**DEFENDANTS' AMENDED ANSWER AND COUNTERCLAIMS (ADDING PATENT  
INFRINGEMENT COUNTERCLAIMS) TO PLAINTIFF'S COMPLAINT**

Defendants ProFrac Manufacturing, LLC (“ProFrac Manufacturing”), and ProFrac Services, LLC (“ProFrac Services” and together with ProFrac Manufacturing, “ProFrac”) U.S. Well Services, LLC, and U.S. Well Services Holdings, LLC (together, “USWS”) (collectively,

“Defendants” or “Counter-Plaintiffs”) file this Amended Answer and Counterclaims to Plaintiff Liberty Energy Services LLC’s (“Liberty Energy Services” or “Plaintiff”) Complaint (ECF No. 1). Except as expressly admitted below, Defendants deny each and every allegation set forth in the Complaint including any that could be drawn from the adoption of Plaintiff’s headings. Defendants reserve the right to amend and/or supplement this Answer. Defendants respond to the numbered paragraphs of the Complaint (ECF No. 1) and the Prayer for Relief as Follows:

**THE PARTIES**

1. Admitted.
2. Admitted.
3. Admitted.
4. Admitted.
5. Admitted.

**NATURE OF THE ACTION**

6. Defendants admit that Plaintiff purports to bring this action for patent infringement under the patent laws of the United States of America, 35 U.S.C. § 271, et seq. Defendants deny that there is any basis for Plaintiff’s claims, and further deny that Plaintiff is entitled to any of the relief requested. Except as expressly admitted, Defendants deny the remainder of the allegations in paragraph 6.

**JURISDICTION AND VENUE**

7. Defendants admit that Plaintiff purports to bring this action for patent infringement under the patent laws of the United States of America, 35 U.S.C. § 271, et seq.
8. Defendants admit that the Court has personal jurisdiction over ProFrac in this specific action. Defendants deny that there is any basis for Plaintiff’s claims, and further deny that Plaintiff

is entitled to any of the relief requested. Except as expressly admitted, Defendants deny the remainder of the allegations in paragraph 8.

9. Defendants admit that venue is proper in this judicial district under 28 U.S.C. §§ 1391 and 1400(b) in this specific action. Defendants deny that there is any basis for Plaintiff's claims, and further deny that Plaintiff is entitled to any of the relief requested. Except as expressly admitted, Defendants deny the remainder of the allegations in paragraph 9.

### **BACKGROUND**

10. Admitted.

11. Defendants are without sufficient knowledge or information to form a belief as to the allegations of paragraph 11, and therefore deny the same.

12. Defendants are without sufficient knowledge or information to form a belief as to the allegations of paragraph 12, and therefore deny the same.

13. Defendants are without sufficient knowledge or information to form a belief as to the allegations of paragraph 13, and therefore deny the same.

14. Defendants are without sufficient knowledge or information to form a belief as to the allegations of paragraph 14, and therefore deny the same.

15. Defendants are without sufficient knowledge or information to form a belief as to the allegations of paragraph 15, and therefore deny the same.

16. Defendants are without sufficient knowledge or information to form a belief as to the allegations in Paragraph 16, and therefore deny the same.

17. Defendants are without sufficient knowledge or information to form a belief as to the allegations in Paragraph 17, and therefore deny the same.

**LIBERTY PATENTS**

18. Defendants admit that a purported copy of the '413 Patent is attached to the Complaint as Exhibit A. Except as expressly admitted, Defendants deny the remainder of the allegations in paragraph 18.

19. Defendants admit that a purported copy of the '635 Patent is attached to the Complaint as Exhibit B. Except as expressly admitted, Defendants deny the remainder of the allegations in paragraph 19.

20. Defendants admit that a purported copy of the '631 Patent is attached to the Complaint as Exhibit C. Except as expressly admitted, Defendants deny the remainder of the allegations in paragraph 20.

21. Defendants admit that a purported copy of the '186 Patent is attached to the Complaint as Exhibit D. Except as expressly admitted, Defendants deny the remainder of the allegations in paragraph 21.

22. Defendants admit that a purported copy of the '086 Patent is attached to the Complaint as Exhibit E. Except as expressly admitted, Defendants deny the remainder of the allegations in paragraph 22.

**PROFRAC'S KNOWLEDGE OF THE LIBERTY PATENTS AND INFRINGEMENT**

23. Denied.

24. Denied.

25. Denied.

26. Denied.

27. Denied.

28. Admitted.

29. Denied.

30. Denied.

31. Denied.

32. Denied.

33. Denied.

34. Denied.

35. Denied.

36. Denied.

37. Denied.

38. Denied.

39. Denied.

**COUNT I: INFRINGEMENT OF THE '413 PATENT**

40. Denied and admitted as set forth herein.

41. Denied.

42. Denied.

43. Denied.

44. Denied.

45. Denied.

46. Denied.

47. Denied.

**COUNT II: INFRINGEMENT OF THE '635 PATENT**

48. Denied and Admitted as set forth herein.

49. Denied.

50. Denied.

51. Denied.

52. Denied.

53. Denied.

54. Denied.

**COUNT III: INFRINGEMENT OF THE '631 PATENT**

55. Denied and Admitted as set forth herein.

56. Denied.

57. Denied.

58. Denied.

59. Denied.

60. Denied.

61. Denied.

**COUNT IV: INFRINGEMENT OF THE '186 PATENT**

62. Denied and Admitted as set forth herein.

63. Denied.

64. Denied.

65. Denied.

66. Denied.

67. Denied.

68. Denied.

**COUNT V: INFRINGEMENT OF THE '086 PATENT**

69. Denied and Admitted as set forth herein.

- 70. Denied.
- 71. Denied.
- 72. Denied.
- 73. Denied.
- 74. Denied.
- 75. Denied.

#### **PRAYER FOR RELIEF**

Defendants request entry of judgment in its favor and against Plaintiff, and specifically requests the Court deny Plaintiff's request for entry of a judgment as described in subsections a) – g) in its Complaint.

#### **DEFENDANTS' AFFIRMATIVE DEFENSES**

Subject to its responses above, and upon information and belief, Defendants allege and assert these defenses in response to the allegations in the Complaint, undertaking the burden of proof only as to those defenses deemed affirmative defenses by law, regardless of how such defenses are denominated. In addition to the affirmative defenses described below, subject to the responses above, Defendants reserve all rights to allege additional defenses pursuant to any scheduling order, that become known through the course of discovery, or otherwise.

#### **FIRST AFFIRMATIVE DEFENSE: UNCLEAN HANDS**

- 1. Plaintiff's causes of action are barred, in whole or in part, by the doctrine of unclean hands.

#### **SECOND AFFIRMATIVE DEFENSE: LACHES**

- 2. Plaintiff's causes of action are barred, in whole or in part, by the doctrine of laches.

**THIRD AFFIRMATIVE DEFENSE: WAIVER AND ESTOPPEL**

3. Plaintiff's causes of action are barred, in whole or in part, by the doctrines of estoppel, quasi estoppel, judicial estoppel, ratification, and waiver.

**FOURTH AFFIRMATIVE DEFENSE: RELEASE**

4. Plaintiff's causes of action are barred, in whole or in part, under the doctrine of release.

**FIFTH AFFIRMATIVE DEFENSE: CONTRACTUAL DISCLAIMER**

5. Plaintiff's causes of action are barred, in whole or in part, by contractual disclaimer under the relevant contract(s) and/or agreement(s).

**SIXTH AFFIRMATIVE DEFENSE: STATUTE OF LIMITATIONS**

6. Plaintiff's causes of action are barred, in whole or in part, because the statute of limitations on Plaintiff's causes of action has run.

**SEVENTH AFFIRMATIVE DEFENSE: INVALIDITY**

7. Defendants allege that each of the Liberty Patents are invalid and/or unpatentable for failure to comply with one or more of the requirements of 35 U.S.C. §§ 100 et seq., including without limitation, 35 U.S.C. §§ 101, 102, 103, and/or 112, and the rules, regulations, and laws pertaining thereto.

**EIGHTH AFFIRMATIVE DEFENSE: NON-INFRINGEMENT**

8. Defendants have not infringed and do not infringe any valid, enforceable claim of any of Liberty Patents. None of the accused products and services identified in the Complaint practice the asserted claims, directly or indirectly, literally or under the doctrine of equivalents, or in any other manner.



**NINTH AFFIRMATIVE DEFENSE: NO DIRECT INFRINGEMENT**

9. To the extent Plaintiffs assert that Defendants indirectly infringe, either by contributory infringement or inducement of infringement, Defendants are not liable to Plaintiffs for the acts alleged to have been performed before Defendants had knowledge of the Liberty Patents.

**TENTH AFFIRMATIVE DEFENSE: FAILURE TO STATE A CLAIM**

10. Plaintiff has failed to plead its claims with sufficient specificity or factual support to place Defendants on notice of the claims Plaintiff is asserting against it, such that Plaintiff has failed to state a claim upon which relief can be granted.

**ELEVENTH AFFIRMATIVE DEFENSE: PROSECUTION HISTORY ESTOPPEL**

11. One or more claims are limited by the text of the Liberty Patents and prosecution histories of the Liberty Patents and related patents such that Plaintiff is estopped, or otherwise precluded, from asserting that the claim is infringed by Defendants, literally or by equivalents.

**TWELFTH AFFIRMATIVE DEFENSE: LICENSE AND COVENANT NOT TO SUE**

12. Plaintiff's claims for relief, in whole or in part, are precluded to the extent any of the claims of the Liberty Patents are subject to a license and covenant not to sue, express and/or implied.

**THIRTEENTH AFFIRMATIVE DEFENSE – LACK OF MARKING**

13. Plaintiff's recovery for alleged infringement of the Liberty Patents, if any, is limited to alleged infringement committed after Plaintiff's provided actual or constructive notice of infringement under 35 U.S.C. § 287.

**FOURTEENTH AFFIRMATIVE DEFENSE: NO WILLFUL INFRINGEMENT**

14. Plaintiff fails to state a claim for relief against Defendants for enhanced or increased damages for willful infringement.

**FIFTEENTH AFFIRMATIVE DEFENSE: NO EXCEPTIONAL CASE**

15. Plaintiff fails to state a claim for relief against Defendants for exceptional case under 35 U.S.C. § 285.

**SIXTEENTH AFFIRMATIVE DEFENSE – NO COSTS**

16. Plaintiff is barred by 35 U.S.C. § 288 from recovering any costs associated with this lawsuit.

**SEVENTEENTH AFFIRMATIVE DEFENSE – LACK OF STANDING**

17. To the extent that Plaintiff was not the sole and total owner of all substantial rights in any of the Liberty Patents as of the filing date of the Complaint, Plaintiff lacks standing to bring one or more claims in this lawsuit.

**EIGHTEENTH AFFIRMATIVE DEFENSE: EXHAUSTION**

18. Plaintiff's claims are barred, in whole or in part, by the doctrine of patent exhaustion.

**NINETEENTH AFFIRMATIVE DEFENSE – ABSENCE OF DAMAGES**

19. Plaintiff has not suffered and will not suffer any injury or damages as a result of Defendants' alleged conduct.

**RESERVATION OF ADDITIONAL AFFIRMATIVE DEFENSES**

Defendants reserve all affirmative defenses under Rule 8(c) of the Federal Rules of Civil Procedure, the Patent Laws of the United States, and any other defenses at law or in equity that may exist now or that may be available in the future based on discovery and further factual investigation in this action.

**COUNTERCLAIMS**

Defendants, by and through their undersigned counsel, incorporate their answers and affirmative defenses as set forth above, and allege counterclaims against Plaintiff Liberty Energy Services, Liberty Energy, Inc., and Liberty Advanced Equipment Technologies LLC

(“Counterclaim-Defendants” or “Counter-Defendant”) for invalidity and non-infringement of the Asserted Patents as follows:

### **BACKGROUND**

1. According to the allegations set forth in its Complaint, Liberty Energy Services claims to be the assignee and owner of the Asserted Patents. Dkt. 1 ¶¶ 18-22.
2. Liberty Energy Services has accused Defendants of infringing the Asserted Patents. Defendants deny that any of their products infringe any valid and enforceable claim in the Asserted Patents.
3. An actual case and controversy exists between Defendants and Liberty Energy Services concerning the alleged infringement of one or more claims of the Asserted Patents, and that controversy is ripe for adjudication.

### **PARTIES**

4. Counterclaim-Plaintiff ProFrac Services, LLC is a limited liability company duly organized under the laws of the State of Texas. Its principal place of business is located at 333 Shops Boulevard, Willow Park, Texas 76087.
5. Counterclaim-Plaintiff ProFrac Manufacturing, LLC is a limited liability company duly organized under the laws of the State of Texas. Its principal place of business is, located at 333 Shops Boulevard, Willow Park, Texas 76087.
6. Counterclaim-Plaintiff U.S. Well Services, LLC is a limited liability company duly organized under the laws of the State of Delaware. Its principal place of business is located at 333 Shops Boulevard, Willow Park, Texas 76087.

7. Counterclaim-Plaintiff U.S. Well Services Holdings, LLC is a limited liability company duly organized under the laws of the State of Delaware. Its principal place of business is located at 333 Shops Boulevard, Willow Park, Texas 76087.

8. Counterclaim-Defendant Liberty Energy Services LLC, formerly known as Liberty Oilfield Services LLC, alleges it is a limited liability company duly organized under the laws of the State of Texas with its principal place of business at 950 17th Street, Suite 2400, Denver, CO 80202. *See* Dkt. 1 ¶ 1.

### **JURISDICTION AND VENUE**

9. This is an action for declaratory judgment under 28 U.S.C. §§ 2201 and 2202. This Court has subject matter jurisdiction over these Counterclaims under §§ 1331 and 1338(a). These Counterclaims arise under the patent laws of the United States.

10. This Court has personal jurisdiction over Liberty Energy Services, at least because by initiating this lawsuit, Liberty Energy Services has submitted to this District's jurisdiction.

11. Venue for these Counterclaims is proper under this District under 28 U.S.C. §§ 1391 and 1400.

### **COUNTERCLAIM 1**

#### **(DECLARATORY JUDGMENT OF NON-INFRINGEMENT OF THE '413 PATENT)**

12. Defendants ("Counterclaim-Plaintiffs" or "Counter-Plaintiffs") incorporate by reference the admissions, denials, and allegations set forth in the preceding paragraphs of this Answer as if fully set forth herein.

13. An actual controversy exists between Defendants and Liberty Energy Services as to whether Defendants infringe the '413 Patent, as Liberty Energy Services contends, or do not do so, as Defendants contend.

14. Defendants have been damaged by Liberty Energy Services's filing of a lawsuit against Defendants based on a patent that Defendants do not infringe.

15. By this Counterclaim, Defendants seek a declaration that they have not infringed and do not infringe any valid and enforceable claim of the '413 Patent either directly or indirectly, literally or under the doctrine of equivalents, or willfully, and is entitled to a declaration.

16. A judicial declaration is necessary and appropriate at this time such that Defendants may ascertain their rights and duties with respect to the '413 Patent and with respect to any past, present, or future manufacture, use, importation, distribution, sale, or offer for sale of their products.

17. This is an exceptional case entitling Defendants to an award of its attorneys' fees incurred in connection with this action pursuant to 35 U.S.C. § 285.

## **COUNTERCLAIM 2**

### **(DECLARATORY JUDGMENT OF INVALIDITY OF THE '413 PATENT)**

18. Defendants incorporate by reference the admissions, denials, and allegations set forth in the preceding paragraphs of this Answer as if fully set forth herein.

19. An actual controversy exists between Defendants and Liberty Energy Services as to whether the '413 Patent is valid, as Liberty Energy Services contends, or is invalid for failure to comply with the requirements of patentability of the Patent Laws of the United States, Title 35 of the United States Code, including, but not limited to, 35 U.S.C. §§ 101, 102, 103, 111, 112, 115, 116, 119, 132, 251, 256, and/or 282, as Defendants contend.

20. For example, U.S. Patent No. 4,453,596 ("596 Patent"), attached hereto as Exhibit 1, filed on February 14, 1983, and issued on June 12, 1984, and is therefore prior art under at least pre-AIA 35 U.S.C. § 102(b).

21. The '596 Patent anticipates and/or renders obvious one or more claims of the '413 Patent.

22. By this Counterclaim, Defendants seek a declaration that the claims of the '413 Patent are invalid. A judicial declaration is necessary and appropriate at this time such that Defendants may ascertain their rights and duties with respect to the '413 Patent and with respect to any past, present, or future manufacture, use, importation, distribution, sale, or offer for sale of their products.

23. This is an exceptional case entitling Defendants to an award of its attorneys' fees incurred in connection with this action pursuant to 35 U.S.C. § 285.

### **COUNTERCLAIM 3**

#### **(DECLARATORY JUDGMENT OF NON-INFRINGEMENT OF THE '635 PATENT)**

24. Defendants incorporate by reference the admissions, denials, and allegations set forth in the preceding paragraphs of this Answer as if fully set forth herein.

25. An actual controversy exists between Defendants and Liberty Energy Services as to whether Defendants infringe the '635 Patent, as Liberty Energy Services contends, or do not do so, as Defendants contend.

26. Defendants have been damaged by Liberty Energy Services's filing of a lawsuit against Defendants based on a patent that Defendants do not infringe.

27. By this Counterclaim, Defendants seek a declaration that they have not infringed and do not infringe any valid and enforceable claim of the '635 Patent either directly or indirectly, literally or under the doctrine of equivalents, or willfully, and is entitled to a declaration.

28. A judicial declaration is necessary and appropriate at this time such that Defendants may ascertain their rights and duties with respect to the '635 Patent and with respect to any past, present, or future manufacture, use, importation, distribution, sale, or offer for sale of their products.

29. This is an exceptional case entitling Defendants to an award of its attorneys' fees incurred in connection with this action pursuant to 35 U.S.C. § 285.

**COUNTERCLAIM 4**

**(DECLARATORY JUDGMENT OF INVALIDITY OF THE '635 PATENT)**

30. Defendants incorporate by reference the admissions, denials, and allegations set forth in the preceding paragraphs of this Answer as if fully set forth herein.

31. An actual controversy exists between Defendants and Liberty Energy Services as to whether the '635 Patent is valid, as Liberty Energy Services contends, or is invalid for failure to comply with the requirements of patentability of the Patent Laws of the United States, Title 35 of the United States Code, including, but not limited to, 35 U.S.C. §§ 101, 102, 103, 111, 112, 115, 116, 119, 132, 251, 256, and/or 282, as Defendants contend.

32. For example, U.S. Patent No. 4,453,596 ("596 Patent"), attached hereto as Exhibit 1, filed on February 14, 1983, and issued on June 12, 1984, and is therefore prior art under at least pre-AIA 35 U.S.C. § 102(b).

33. The '596 Patent anticipates and/or renders obvious one or more claims of the '635 Patent.

34. By this Counterclaim, Defendants seek a declaration that the claims of the '635 Patent are invalid. A judicial declaration is necessary and appropriate at this time such that Defendants may ascertain their rights and duties with respect to the '635 Patent and with respect to any past, present, or future manufacture, use, importation, distribution, sale, or offer for sale of their products.

35. This is an exceptional case entitling Defendants to an award of their attorneys' fees incurred in connection with this action pursuant to 35 U.S.C. § 285.

**COUNTERCLAIM 5**

**(DECLARATORY JUDGMENT OF NON-INFRINGEMENT OF THE '631 PATENT)**

36. Defendants incorporate by reference the admissions, denials, and allegations set forth in the preceding paragraphs of this Answer as if fully set forth herein.

37. An actual controversy exists between Defendants and Liberty Energy Services as to whether Defendants infringe the '631 Patent, as Liberty Energy Services contends, or do not do so, as Defendants contend.

38. Defendants have been damaged by Liberty Energy Services's filing of a lawsuit against Defendants based on a patent that Defendants do not infringe.

39. By this Counterclaim, Defendants seek a declaration that they have not infringed and do not infringe any valid and enforceable claim of the '631 Patent either directly or indirectly, literally or under the doctrine of equivalents, or willfully, and is entitled to a declaration.

40. A judicial declaration is necessary and appropriate at this time such that Defendants may ascertain their rights and duties with respect to the '631 Patent and with respect to any past, present, or future manufacture, use, importation, distribution, sale, or offer for sale of their products.

41. This is an exceptional case entitling Defendants to an award of their attorneys' fees incurred in connection with this action pursuant to 35 U.S.C. § 285.

#### **COUNTERCLAIM 6**

##### **(DECLARATORY JUDGMENT OF INVALIDITY OF THE '631 PATENT)**

42. Defendants incorporate by reference the admissions, denials, and allegations set forth in the preceding paragraphs of this Answer as if fully set forth herein.

43. An actual controversy exists between Defendants and Liberty Energy Services as to whether the '631 Patent is valid, as Liberty Energy Services contends, or is invalid for failure to comply with the requirements of patentability of the Patent Laws of the United States, Title 35 of the United States Code, including, but not limited to, 35 U.S.C. §§ 101, 102, 103, 111, 112, 115, 116, 119, 132, 251, 256, and/or 282, as Defendants contend.



44. For example, U.S. Patent No. 4,453,596 (“’596 Patent”), attached hereto as Exhibit 1, filed on February 14, 1983, and issued on June 12, 1984, and is therefore prior art under at least pre-AIA 35 U.S.C. § 102(b).

45. The ’596 Patent anticipates and/or renders obvious one or more claims of the ’631 Patent.

46. By this Counterclaim, Defendants seek a declaration that the claims of the ’631 Patent are invalid. A judicial declaration is necessary and appropriate at this time such that Defendants may ascertain their rights and duties with respect to the ’631 Patent and with respect to any past, present, or future manufacture, use, importation, distribution, sale, or offer for sale of their products.

47. This is an exceptional case entitling Defendants to an award of their attorneys’ fees incurred in connection with this action pursuant to 35 U.S.C. § 285.

#### **COUNTERCLAIM 7**

##### **(DECLARATORY JUDGMENT OF NON-INFRINGEMENT OF THE ’186 PATENT)**

48. Defendants incorporate by reference the admissions, denials, and allegations set forth in the preceding paragraphs of this Answer as if fully set forth herein.

49. An actual controversy exists between Defendants and Liberty Energy Services as to whether Defendants infringe the ’186 Patent, as Liberty Energy Services contends, or do not do so, as Defendants contend.

50. Defendants have been damaged by Liberty Energy Services’s filing of a lawsuit against Defendants based on a patent that Defendants do not infringe.

51. By this Counterclaim, Defendants seek a declaration that they have not infringed and do not infringe any valid and enforceable claim of the ’186 Patent either directly or indirectly, literally or under the doctrine of equivalents, or willfully, and is entitled to a declaration.

52. A judicial declaration is necessary and appropriate at this time such that Defendants may ascertain their rights and duties with respect to the '186 Patent and with respect to any past, present, or future manufacture, use, importation, distribution, sale, or offer for sale of their products.

53. This is an exceptional case entitling Defendants to an award of their attorneys' fees incurred in connection with this action pursuant to 35 U.S.C. § 285.

### **COUNTERCLAIM 8**

#### **(DECLARATORY JUDGMENT OF INVALIDITY OF THE '186 PATENT)**

54. Defendants incorporate by reference the admissions, denials, and allegations set forth in the preceding paragraphs of this Answer as if fully set forth herein.

55. An actual controversy exists between Defendants and Liberty Energy Services as to whether the '186 Patent is valid, as Liberty Energy Services contends, or is invalid for failure to comply with the requirements of patentability of the Patent Laws of the United States, Title 35 of the United States Code, including, but not limited to, 35 U.S.C. §§ 101, 102, 103, 111, 112, 115, 116, 119, 132, 251, 256, and/or 282, as Defendants contend.

56. For example, U.S. Patent No. 4,453,596 ("596 Patent"), attached hereto as Exhibit 1, filed on February 14, 1983, and issued on June 12, 1984, and is therefore prior art under at least pre-AIA 35 U.S.C. § 102(b).

57. The '596 Patent anticipates and/or renders obvious one or more claims of the '186 Patent.

58. By this Counterclaim, Defendants seek a declaration that the claims of the '186 Patent are invalid. A judicial declaration is necessary and appropriate at this time such that Defendants may ascertain their rights and duties with respect to the '186 Patent and with respect to any past, present, or future manufacture, use, importation, distribution, sale, or offer for sale of their products.

59. This is an exceptional case entitling Defendants to an award of their attorneys' fees incurred in connection with this action pursuant to 35 U.S.C. § 285.

**COUNTERCLAIM 9**

**(DECLARATORY JUDGMENT OF NON-INFRINGEMENT OF THE '086 PATENT)**

60. Defendants incorporate by reference the admissions, denials, and allegations set forth in the preceding paragraphs of this Answer as if fully set forth herein.

61. An actual controversy exists between Defendants and Liberty Energy Services as to whether Defendants infringe the '086 Patent, as Liberty Energy Services contends, or do not do so, as Defendants contend.

62. Defendants have been damaged by Liberty Energy Services's filing of a lawsuit against Defendants based on a patent that Defendants do not infringe.

63. By this Counterclaim, Defendants seek a declaration that it has not infringed and does not infringe any valid and enforceable claim of the '086 Patent either directly or indirectly, literally or under the doctrine of equivalents, or willfully, and is entitled to a declaration.

64. A judicial declaration is necessary and appropriate at this time such that Defendants may ascertain their rights and duties with respect to the '086 Patent and with respect to any past, present, or future manufacture, use, importation, distribution, sale, or offer for sale of their products.

65. This is an exceptional case entitling Defendants to an award of their attorneys' fees incurred in connection with this action pursuant to 35 U.S.C. § 285.

**COUNTERCLAIM 10**

**(DECLARATORY JUDGMENT OF INVALIDITY OF THE '086 PATENT)**

66. Defendants incorporate by reference the admissions, denials, and allegations set forth in the preceding paragraphs of this Answer as if fully set forth herein.

67. An actual controversy exists between Defendants and Liberty Energy Services as to whether the '086 Patent is valid, as Liberty Energy Services contends, or is invalid for failure to comply with the requirements of patentability of the Patent Laws of the United States, Title 35 of the United States Code, including, but not limited to, 35 U.S.C. §§ 101, 102, 103, 111, 112, 115, 116, 119, 132, 251, 256, and/or 282, as Defendants contend.

68. For example, U.S. Patent No. 4,453,596 ("596 Patent"), attached hereto as Exhibit 1, filed on February 14, 1983, and issued on June 12, 1984, and is therefore prior art under at least pre-AIA 35 U.S.C. § 102(b).

69. The '596 Patent anticipates and/or renders obvious one or more claims of the '086 Patent.

70. By this Counterclaim, Defendants seek a declaration that the claims of the '086 Patent are invalid. A judicial declaration is necessary and appropriate at this time such that Defendants may ascertain their rights and duties with respect to the '086 Patent and with respect to any past, present, or future manufacture, use, importation, distribution, sale, or offer for sale of their products.

71. This is an exceptional case entitling Defendants to an award of their attorneys' fees incurred in connection with this action pursuant to 35 U.S.C. § 285.

#### **COUNTER-PLAINTIFFS' COUNTERCLAIM FOR PATENT INFRINGEMENT**

72. This is an action for patent infringement arising under the patent laws of the United States, 35 U.S.C. § 271 *et seq.* This action involves U.S. Patent No. 11,211,801, U.S. Patent No. 11,668,420, U.S. Patent No. 11,009,162, U.S. Patent No. 12,012,952, U.S. Patent No. 11,067,481, and U.S. Patent No. 11,674,868 (collectively, the "Asserted USWS Patents"). USWS owns all right, title, and interest in the Asserted USWS Patents and are entitled to sue for past damages. The Asserted USWS Patents are asserted against Plaintiff Liberty Energy Services LLC as well as Liberty Energy, Inc. and Liberty Advanced Equipment Technologies LLC (collectively, "Liberty")

or “Counter-Defendants”). On information and belief, Liberty Energy, Inc. is a corporation organized under the laws of the State of Delaware with its principal place of business at 950 17th Street, Suite 2400, Denver, CO 80202. On information and belief, Liberty Energy, Inc. sells, offers to sell, and/or uses products and services throughout the United States used for hydraulic fracturing and related services for use in oil and natural gas exploration and production, including in this judicial district. On information and belief, Liberty Advanced Equipment Technologies LLC is a subsidiary of Liberty Energy, Inc. and is a limited liability company organized under the laws of the state of Texas with its principal place of business at 331 Corporate Woods Dr., Suite D, Magnolia, TX, 77354 and a regular and established place of business at 318 Magnolia Business Park Dr., Magnolia, TX 77354.

73. USWS was founded in 2012 with its headquarters in Houston, Texas and provides services at well sites to exploration companies, including hydraulic fracturing services.

74. In July 2014, USWS successfully deployed Clean Fleet, the first all-electric hydraulic fracturing (E-Frac) system in the fracturing industry. USWS earned public acclaim for this breakthrough, including a New Technology Development Award at the Annual Oil & Gas Awards in March 2015. Clean Fleet has saved USWS customers millions of dollars in operational costs and led to long-term contracts with some of the largest exploration and production companies in the world.

75. USWS has applied for and obtained dozens of patents relating to E-Frac and continues to be a leading innovator in the oilfield services industry. Owing to USWS’s operational and technological success relating to E-Frac, USWS was purchased in 2022 by ProFrac’s parent company, which boasts one of the largest number of fleets in the well stimulation industry. Upon information and belief, Liberty was aware of the Asserted USWS Patents. For example, Liberty

was aware of USWS's extensive patent portfolio owing to ST9's close work with USWS. In addition, ProFrac and USWS comply with the marking requirements of 35 U.S.C. § 287. Further, numerous published patent applications owned by USWS were cited during the prosecution of multiple of Liberty's patents including U.S. Patent Nos. 11,339,769, 11,598,324, and 11,313,359. All three of these patents cite USWS patents or applications on their face and were issued prior to the filing of these counterclaims. Further, the parties have been engaged in numerous proceedings regarding USWS patents including in the Southern District of Texas and before the Patent Trial and Appeal Board of the U.S. Patent and Trademark Office.

76. On information and belief, Liberty operates multiple locations in the Eastern District of Texas, including at 5700 Tennyson Parkway Suite 550, Plano, TX 75024. *See* <https://libertyenergy.com/contact/>.

77. On information and belief, Liberty performs hydraulic fracturing services in the United States, including in the Eastern District of Texas.

78. Liberty advertises that it provides hydraulic fracturing services on its website. *See, e.g.,* <https://libertyenergy.com/>. Liberty further advertises that it provides "NEXT-GEN ELECTRIC AND HYBRID COMPLETION TECHNOLOGY" under the digiTechnologies branding. *See, e.g.,* <https://libertyenergy.com/technology/digitechnologies/>. The products and services offered include "digiPrime," "digiFrac," "digiPower," and "digiWire." *Id.*

### **THE ASSERTED USWS PATENTS**

79. On December 28, 2021, the United States Patent and Trademark Office ("USPTO") duly and legally issued U.S. Patent No. 11,211,801 (the "'801 Patent"), titled "Integrated mobile power unit for hydraulic fracturing." The '801 Patent is assigned to USWS. A true and correct copy of the '801 Patent is attached as Ex. 2.

80. On June 6, 2023, the USPTO duly and legally issued U.S. Patent No. 11,668,420 (the “’420 Patent”), titled “System and method for integrated flow supply line.” The ’420 Patent is assigned to USWS. A true and correct copy of the ’420 Patent is attached as Ex. 3.

81. On May 18, 2021, the USPTO duly and legally issued U.S. Patent No. 11,009,162 (the “’162 Patent”), titled “System and method for integrated flow supply line.” The ’162 Patent is assigned to USWS. A true and correct copy of the ’420 Patent is attached as Ex. 4.

82. On June 18, 2024, the USPTO duly and legally issued U.S. Patent No. 12,012,952 (the “’952 Patent”), titled “Electrically actuated valves for manifold trailers or skids.” The ’952 Patent is assigned to USWS. A true and correct copy of the ’952 Patent is attached as Ex. 5.

83. On July 20, 2021, the USPTO duly and legally issued U.S. Patent No. 11,067,481 (the “’481 Patent”), titled “Instrumented fracturing slurry flow system and method.” The ’481 Patent is assigned to USWS. A true and correct copy of the ’481 Patent is attached as Ex. 6.

84. On June 13, 2023, the USPTO duly and legally issued U.S. Patent No. 11,674,868 (the “’868 Patent”), titled “Instrumented fracturing slurry flow system and method.” The ’868 Patent is assigned to USWS. A true and correct copy of the ’868 Patent is attached as Ex. 7.

### **COUNTERCLAIM 11**

#### **(INFRINGEMENT OF U.S. PAT. NO. 11,211,801)**

85. Counter-Plaintiffs incorporate by reference the admissions, denials, and allegations set forth in the preceding paragraphs of this Answer as if fully set forth herein.

86. Liberty’s products and/or services that infringe the ’801 Patent include Liberty’s hydraulic fracturing services and equipment, including, but not limited to, Liberty’s digiTechnologies products and operations that use digiTechnologies products (collectively, the “Accused Liberty Products and Services”).

87. Liberty has committed acts of direct infringement of the '801 Patent under 35 U.S.C. § 271(a) at least by making, using, selling, offering to sell, and/or importing into the United States the Accused Liberty Products and Services.

88. Liberty has directly infringed—literally and/or under the doctrine of equivalents—at least Claim 12 of the '801 Patent by making, using, selling, importing and/or offering for sale the Accused Liberty Products and Services.

89. Claim 12 of the '801 Patent recites:

12. A method comprising:

providing a first mobile unit with at least one first generator and at least one switchgear located together in the first mobile unit, the at least one first generator coupled to the at least one switch gear on the first mobile unit, the at least one switch gear to be associated with at least one transformer and with an interconnect and a bus bar;

generating power from the at least one generator;

providing the power using electrical buses of the at least one switchgear and using the at least one transformer, the interconnect, and the bus bar, the power for loads in one or more external mobile units, the at least one switchgear, the interconnect, the bus bar, and the electrical buses sized to support voltage and current requirements of the loads and to support voltage and current outputs of the at least one transformer with the at least one first generator in a load sharing arrangement with a second generator of a second mobile unit.

90. On information and belief, the Accused Liberty Products and Services include a method comprising providing a first mobile unit with at least one first generator and at least one switchgear located together in the first mobile unit, the at least one first generator coupled to the at least one switch gear on the first mobile unit, the at least one switch gear to be associated with at least one transformer and with an interconnect and a bus bar, including as demonstrated in the images below.





<https://www.youtube.com/watch?v=yAjdDN6En10> [hereinafter *Example Image 1.1*].

## A MODULAR SYSTEM

Powering an electric grid requires two key components, consistent baseload power and a highly responsive means of addressing the variations in demand over the course of a day. Pumping a frac treatment is no different. Our digiTechnologies suite is specifically designed to work together to meet this need.



### DIGIPRIME

The workhorse, digiPrime is engineered to provide steady baseload pumping horsepower.



### DIGIFRAC

digiFrac provides the finesse that allows for the fine-tuning of rate and pressure as the job progresses.

<https://libertyenergy.com/technology/digitechnologies/> [hereinafter *Example Image 1.2*].

**DIGIPOWER** ▶

**POWER MANAGEMENT & DISTRIBUTION**

Powering the digiFrac pump is Rolls Royce's 20V4000 natural gas generator set. This 100% natural gas solution provides extremely high thermal efficiencies (43%) while minimizing negative impacts on thermal efficiency due to environmental conditions. This results in the lowest emissions, and lowest fuel consumption engine on the market.

In some cases, a grid connection may be available on location to provide some of the necessary electrical power for the frac equipment. digiPower's modular platform allows the system to accommodate any amount of grid input, from a few megawatts to enough power to run the whole location, all managed through our common bus distribution trailer.

<https://libertyenergy.com/technology/digitechnologies/> [hereinafter *Example Image 1.3*].


Trailer Specs

Technical Specifications

Continuous Power Rating	2504 kWe (3,358 HP)
Methane Number Requirement	65 to 90
Lower Heating Value Requirement	Approx. 1050 BTU/scf
Operating Ambient Temp	-5°F (-20°C) to 122°F (50°C)
Operating Voltage	13.8 kV or 480V
Operating Frequency	60 Hz
Engine Speed at load	1500 RPM
Estimated fuel rate at full load	21,500 SCFH
Emissions at 75% load	CO <sub>2</sub> e: 522 g/kW-hr NO <sub>x</sub> : 1.38 g/kW-hr CO: 2.06 g/kW-hr

General Specifications

Trailer Dimensions (L x W x H)	58 ft x 8.5 ft x 13.5 ft
Trailer Weight	Estimated 144,250 lbs.
Quiet Fleet Technology	85dBC at 25 ft



Get in Touch

<https://libertyenergy.com/wp-content/uploads/2024/07/digiPower-Liberty-Energy-LPI-Portable-Power-Generation.pdf> [hereinafter *Example Image 1.4*].

91. On information and belief, the Accused Liberty Products and Services include generating power from the at least one generator, including as demonstrated in *Example Images 1.1–1.4*, *supra* at paragraph 90.

92. On information and belief, the Accused Liberty Products and Services include providing the power using electrical buses of the at least one switchgear and using the at least one

transformer, the interconnect, and the bus bar, the power for loads in one or more external mobile units, the at least one switchgear, the interconnect, the bus bar, and the electrical buses sized to support voltage and current requirements of the loads and to support voltage and current outputs of the at least one transformer with the at least one first generator in a load sharing arrangement with a second generator of a second mobile unit, including as demonstrated in *Example Images 1.1–1.4, supra* at paragraph 90.

93. Liberty's continued infringement of the '801 Patent has damaged and will continue to damage Counter-Plaintiffs in an amount to be proven at trial.

94. Unless and until it is enjoined by this Court, Liberty will continue to infringe the '801 Patent, directly or indirectly, or under the doctrine of equivalents. Liberty's infringing acts are causing and will continue to cause Counter-Plaintiffs irreparable harm, for which there is no adequate remedy at law. Under 35 U.S.C. § 283, Counter-Plaintiffs are entitled to a permanent injunction against further infringement.

## **COUNTERCLAIM 12**

### **(INFRINGEMENT OF U.S. PAT. NO. 11,668,420)**

95. Counter-Plaintiffs incorporate by reference the admissions, denials, and allegations set forth in the preceding paragraphs of this Answer as if fully set forth herein.

96. Liberty's products and/or services that infringe the '420 Patent include the Accused Liberty Products and Services.

97. Liberty has committed acts of direct infringement of the '420 Patent under 35 U.S.C. § 271(a) at least by making, using, selling, offering to sell, and/or importing into the United States the Accused Liberty Products and Services.

98. Liberty has directly infringed—literally and/or under the doctrine of equivalents—at least Claim 1 of the '420 Patent by making, using, selling, importing and/or offering for sale the Accused Liberty Products and Services.

99. Claim 1 of the '420 Patent recites:

1. A hydraulic fracturing system for fracturing a subterranean formation, comprising:

an electric powered multi-plunger hydraulic fracturing pump having an inlet and an outlet, the outlet coupled to a well associated with the subterranean formation and powered by at least one electric motor;

a fluid source, coupled to the inlet of the electric powered multi-plunger hydraulic fracturing pump, the fluid source providing a slurry for injection into the subterranean formation;

a hose extending between the fluid source and the electric powered multi-plunger hydraulic fracturing pump, the hose comprising:

a first end, for coupling to the fluid source, having a first diameter;

a second end, for coupling to the inlet of the electric powered multi-plunger hydraulic fracturing pump, having a second diameter; and

a body between the first end and the second end having a third diameter, the third diameter being less than both the first diameter and the second diameter; and

a pair of fittings, a first fitting forming the first end and a second fitting forming the second end, each fitting of the pair of fittings having a shank end for receiving at least a portion of the body and a union for engaging the respective fluid source and electric powered multi-plunger hydraulic fracturing pump.

100. The Accused Liberty Products and Services include a hydraulic fracturing system for fracturing a subterranean formation, including as demonstrated in *Example Image 1.1, supra* at paragraph 90.

101. On information and belief, the Accused Liberty Products and Services include an electric powered multi-plunger hydraulic fracturing pump having an inlet and an outlet, the outlet coupled

to a well associated with the subterranean formation and powered by at least one electric motor, including as demonstrated in the image below and in *Example Image 1.1*, *supra* at paragraph 90.



<https://libertyenergy.com/wp-content/uploads/2024/08/libertyEnergy-digiTechnologies-digiFrac.pdf> [hereinafter *Example Image 1.5*].

102. On information and belief, the Accused Liberty Products and Services include a fluid source, coupled to the inlet of the electric powered multi-plunger hydraulic fracturing pump, the fluid source providing a slurry for injection into the subterranean formation, including as demonstrated in the images below and in *Example Image 1.1*, *supra* at paragraph 90.

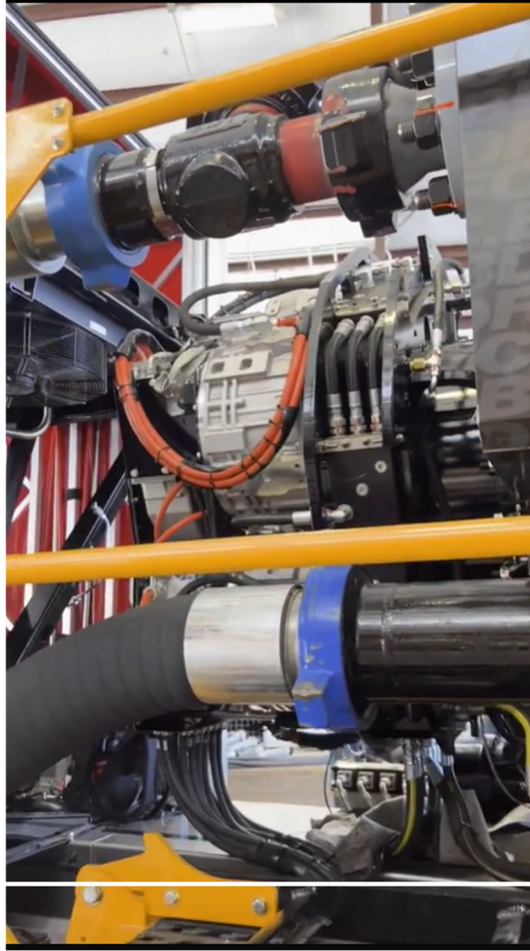


Our hydraulic fracturing fleets consist of mobile hydraulic fracturing units and other auxiliary heavy equipment to perform fracturing services. Our hydraulic fracturing units consist primarily of high-pressure hydraulic pumps, engines, transmissions, radiators and other supporting equipment that are typically mounted on trailers. We refer to the group of units and other equipment, such as blenders, data vans, sand storage, tractors, manifolds and high-pressure fracturing iron, which are necessary to perform a typical hydraulic fracturing job, as a “fleet,” and the personnel assigned to each fleet as a “crew.” The size of each fleet and crew can vary depending on the requirements of each job design.

<https://investors.libertyenergy.com/~media/Files/L/Liberty-Oilfield-IR-V3/financial-information/liberty-energy-annual-report-2023-web-10k.pdf> [hereinafter *Example Image 1.6*].



<https://investors.libertyfrac.com/~media/Files/L/Liberty-OilField-IR-V3/reports-and-presentations/investor-day-presentation-june-2021-vf.pdf> [hereinafter *Example Image 1.7*].



<https://www.tiktok.com/@fracslap/video/7139567659993074990> [hereinafter *Example Image 1.8*].

103. On information and belief, the Accused Liberty Products and Services include a hose extending between the fluid source and the electric powered multi-plunger hydraulic fracturing pump, the hose comprising a first end, for coupling to the fluid source, having a first diameter; a second end, for coupling to the inlet of the electric powered multi-plunger hydraulic fracturing pump, having a second diameter; and a body between the first end and the second end having a third diameter, the third diameter being less than both the first diameter and the second diameter, including as demonstrated in *Example Images 1.1, 1.5–1.8, supra* at paragraphs 90, 101, 102.

104. On information and belief, the Accused Liberty Products and Services include a pair of fittings, a first fitting forming the first end and a second fitting forming the second end, each fitting of the pair of fittings having a shank end for receiving at least a portion of the body and a union for engaging the respective fluid source and electric powered multi-plunger hydraulic fracturing pump, including as demonstrated in *Example Images 1.1, 1.5–1.8, supra* at paragraphs 90, 101, 102.

105. Liberty's continued infringement of the '420 Patent has damaged and will continue to damage Counter-Plaintiffs in an amount to be proven at trial.

106. Unless and until it is enjoined by this Court, Liberty will continue to infringe the '420 Patent, directly or indirectly, or under the doctrine of equivalents. Liberty's infringing acts are causing and will continue to cause Counter-Plaintiffs irreparable harm, for which there is no adequate remedy at law. Under 35 U.S.C. § 283, Counter-Plaintiffs are entitled to a permanent injunction against further infringement.

### **COUNTERCLAIM 13**

#### **(INFRINGEMENT OF U.S. PAT. NO. 11,009,162)**

107. Counter-Plaintiffs incorporate by reference the admissions, denials, and allegations set forth in the preceding paragraphs of this Answer as if fully set forth herein.

108. Liberty's products and/or services that infringe the '162 Patent include the Accused Liberty Products and Services.

109. Liberty has committed act of direct infringement of the '162 Patent under 35 U.S.C. § 271(a) at least by making, using, selling, offering to sell, and/or importing into the United States products and system described herein.



110. Liberty has directly infringed—literally and/or under the doctrine of equivalents—at least Claim 1 of the '162 Patent by making, using, selling, importing and/or offering for sale the Accused Liberty Products and Services.

111. Claim 1 of the '162 Patent recites:

1. A hydraulic fracturing system for fracturing a subterranean formation, comprising:

an electric powered, multi-plunger hydraulic fracturing pump having an inlet and an outlet, the outlet coupled to a well associated with the subterranean formation and powered by at least one electric motor;

a fluid source, coupled to the inlet of the electric powered pump, the fluid source providing a slurry for injection into the subterranean formation;

a hose extending between the fluid source and the electric powered pump, the hose being flexible and having a first diameter;

a fitting between the hose and the electric powered pump, the fitting having a first end for receiving the hose at the first diameter and a second end for coupling to the electric powered pump at a second diameter, the second diameter being larger than the first diameter; and

a distribution system, positioned between the wellbore and the electric powered pump, the distribution system collecting the slurry from electric powered pumps for injection into the subterranean formation.

112. On information and belief, the Accused Liberty Products and Services include a hydraulic fracturing system for fracturing a subterranean formation, including as demonstrated in *Example Images 1.1, 1.5–1.8, supra* at paragraphs 90, 101, 102.

113. On information and belief, the Accused Liberty Products and Services include an electric powered, multi-plunger hydraulic fracturing pump having an inlet and an outlet, the outlet coupled to a well associated with the subterranean formation and powered by at least one electric motor, including as demonstrated in *Example Images 1.1, 1.5–1.8, supra* at paragraphs 90, 101, 102.

114. On information and belief, the Accused Liberty Products and Services include a fluid source, coupled to the inlet of the electric powered pump, the fluid source providing a slurry for injection into the subterranean formation, including as demonstrated in *Example Images 1.1, 1.5–1.8, supra* at paragraphs 90, 101, 102.

115. On information and belief, the Accused Liberty Products and Services include a hose extending between the fluid source and the electric powered pump, the hose being flexible and having a first diameter, including as demonstrated in *Example Images 1.1, 1.5–1.8, supra* at paragraphs 90, 101, 102.

116. On information and belief, the Accused Liberty Products and Services include a fitting between the hose and the electric powered pump, the fitting having a first end for receiving the hose at the first diameter and a second end for coupling to the electric powered pump at a second diameter, the second diameter being larger than the first diameter, including as demonstrated in *Example Images 1.1, 1.5–1.8, supra* at paragraphs 90, 101, 102.

117. On information and belief, the Accused Liberty Products and Services include a distribution system, positioned between the wellbore and the electric powered pump, the distribution system collecting the slurry from electric powered pumps for injection into the subterranean formation, including as demonstrated in *Example Images 1.1, 1.5–1.8, supra* at paragraphs 90, 101, 102.

118. Liberty's continued infringement of the '162 Patent has damaged and will continue to damage Counter-Plaintiffs in an amount to be proven at trial.

119. Unless and until it is enjoined by this Court, Liberty will continue to infringe the '162 Patent, directly or indirectly, or under the doctrine of equivalents. Liberty's infringing acts are causing and will continue to cause Counter-Plaintiffs irreparable harm, for which there is no

adequate remedy at law. Under 35 U.S.C. § 283, Counter-Plaintiffs are entitled to a permanent injunction against further infringement.

**COUNTERCLAIM 14**

**(INFRINGEMENT OF U.S. PAT. NO. 12,012,952)**

120. Counter-Plaintiffs incorporate by reference the admissions, denials, and allegations set forth in the preceding paragraphs of this Answer as if fully set forth herein.

121. Liberty's products and/or services that infringe the '952 Patent include the Accused Liberty Products and Services.

122. Liberty has committed act of direct infringement of the '952 Patent under 35 U.S.C. § 271(a) at least by making, using, selling, offering to sell, and/or importing into the United States the Accused Liberty Products and Services.

123. Liberty has directly infringed—literally and/or under the doctrine of equivalents—at least Claim 14 of the '952 Patent by making, using, selling, importing and/or offering for sale the Accused Liberty Products and Services.

124. Claim 14 of the '952 Patent recites:

14. A hydraulic fracturing valve control system, comprising:

an electric powered, multi-plunger hydraulic fracturing pump;

a manifold coupled to the electric powered, multi-plunger hydraulic fracturing pump;

a valve associated with the manifold, the valve being operable to move between an open position, a closed position, and a plurality of intermediate positions;

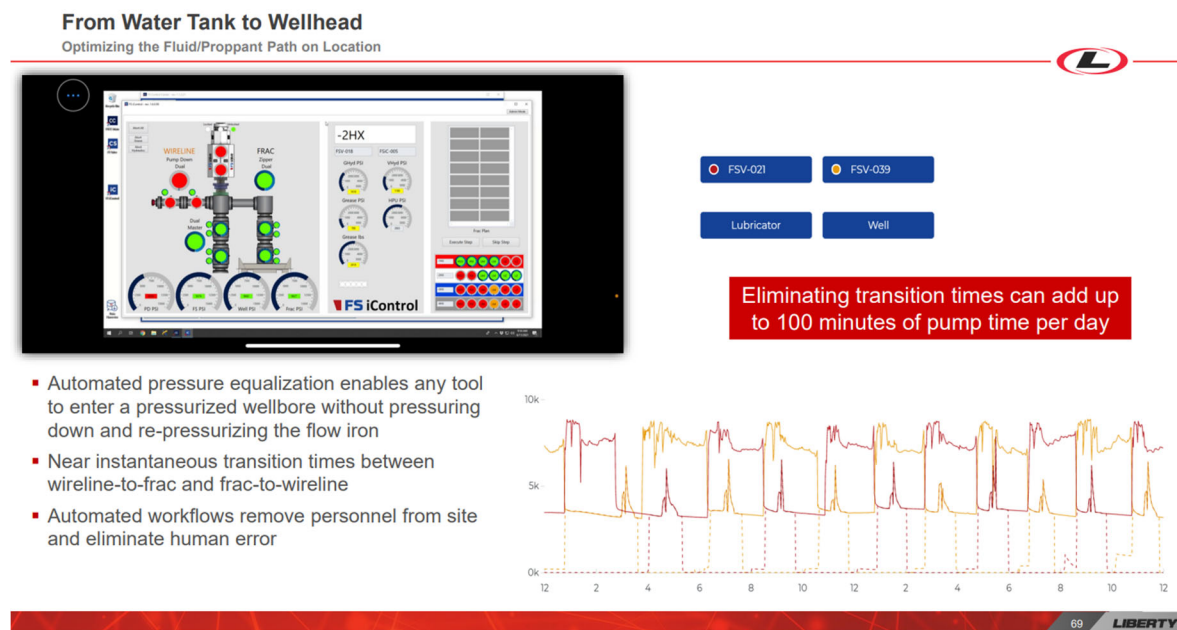
a valve actuator; coupled to the valve, the valve actuator being an electric actuator that is remotely controllable in response to one or more operational aspects of the electric powered, multi-plunger hydraulic fracturing pump;

a valve control distribution box, arranged at the manifold, configured to receive control signals from the electric powered, multi-plunger hydraulic fracturing pump,

the valve control distribution box relaying the control signals to the valve actuator; and

a control interface, the control interface forming at least a portion of a control system, the control interface being accessible from a location remote from the electric powered, multi-plunger hydraulic fracturing pump and outside of a zone of pressure formed by the electric powered, multi-plunger hydraulic fracturing pump during operation.

125. On information and belief, the Accused Liberty Products and Services include a hydraulic fracturing valve control system, including as demonstrated in the image below and in *Example Images 1.1, 1.7, supra* at paragraphs 90, 102.



<https://investors.libertyfrac.com/~media/Files/L/Liberty-OilField-IR-V3/reports-and-presentations/investor-day-presentation-june-2021-vf.pdf> [hereinafter *Example Image 1.9*]

126. On information and belief, the Accused Liberty Products and Services include an electric powered, multi-plunger hydraulic fracturing pump, including as demonstrated in *Example Images 1.1, 1.7, 1.9, supra* at paragraphs 90, 102, 125.

127. On information and belief, the Accused Liberty Products and Services include a manifold coupled to the electric powered, multi-plunger hydraulic fracturing pump, including as demonstrated in *Example Images 1.1, 1.7, 1.9, supra* at paragraphs 90, 102, 125.

128. On information and belief, the Accused Liberty Products and Services include a valve associated with the manifold, the valve being operable to move between an open position, a closed position, and a plurality of intermediate positions, including as demonstrated in *Example Images 1.1, 1.7, 1.9, supra* at paragraphs 90, 102, 125.

129. On information and belief, the Accused Liberty Products and Services include a valve actuator; coupled to the valve, the valve actuator being an electric actuator that is remotely controllable in response to one or more operational aspects of the electric powered, multi-plunger hydraulic fracturing pump, including as demonstrated in *Example Images 1.1, 1.7, 1.9, supra* at paragraphs 90, 102, 125.

130. On information and belief, the Accused Liberty Products and Services include a valve control distribution box, arranged at the manifold, configured to receive control signals from the electric powered, multi-plunger hydraulic fracturing pump, the valve control distribution box relaying the control signals to the valve actuator, including as demonstrated in *Example Images 1.1, 1.7, 1.9, supra* at paragraphs 90, 102, 125.

131. On information and belief, the Accused Liberty Products and Services include a control interface, the control interface forming at least a portion of a control system, the control interface being accessible from a location remote from the electric powered, multi-plunger hydraulic fracturing pump and outside of a zone of pressure formed by the electric powered, multi-plunger hydraulic fracturing pump during operation, including as demonstrated in *Example Images 1.1, 1.7, 1.9, supra* at paragraphs 90, 102, 125.

132. Liberty's continued infringement of the '952 Patent has damaged and will continue to damage Counter-Plaintiffs in an amount to be proven at trial.

133. Unless and until it is enjoined by this Court, Liberty will continue to infringe the '952 Patent, directly or indirectly, or under the doctrine of equivalents. Liberty's infringing acts are causing and will continue to cause Counter-Plaintiffs irreparable harm, for which there is no adequate remedy at law. Under 35 U.S.C. § 283, Counter-Plaintiffs are entitled to a permanent injunction against further infringement.

### **COUNTERCLAIM 15**

#### **(INFRINGEMENT OF U.S. PAT. NO. 11,067,481)**

134. Counter-Plaintiffs incorporate by reference the admissions, denials, and allegations set forth in the preceding paragraphs of this Answer as if fully set forth herein.

135. Liberty's products and/or services that infringe the '481 Patent include the Accused Liberty Products and Services.

136. Liberty has committed act of direct infringement of the '481 Patent under 35 U.S.C. § 271(a) at least by making, using, selling, offering to sell, and/or importing into the United States products and system described herein.

137. Liberty has directly infringed—literally and/or under the doctrine of equivalents—at least Claim 8 of the '481 Patent by making, using, selling, importing and/or offering for sale the Accused Liberty Products and Services.

138. Claim 8 of the '481 Patent recites:

8. A method for adjusting a pump during a fracturing operation, comprising:  
receiving first data from a first sensor arranged at a suction side of the pump;  
receiving second data from a second sensor arranged at a discharge side of the pump;

determining a pump efficiency, based at least in part on the first data and the second data;

comparing the pump efficiency to a threshold, the threshold being a pre-determined value indicative of an operational condition of the pump;

determining the pump efficiency is below the threshold;

adjusting one or more operating parameters of the pump;

receiving third data from a third sensor arranged on the pump; and

determining a damage threshold, for the pump, is below a pre-determined limit, based at least in part on the third data.

139. On information and belief, the Accused Liberty Products and perform the method of Claim 1, including as demonstrated in the images below and in *Example Images 1.1, 1.2, 1.5, supra* at paragraphs 90, 101.

#### **Digital Maintenance and Predictive Analytics**

Targeted Component Modeling

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##### **Key Differentiators**

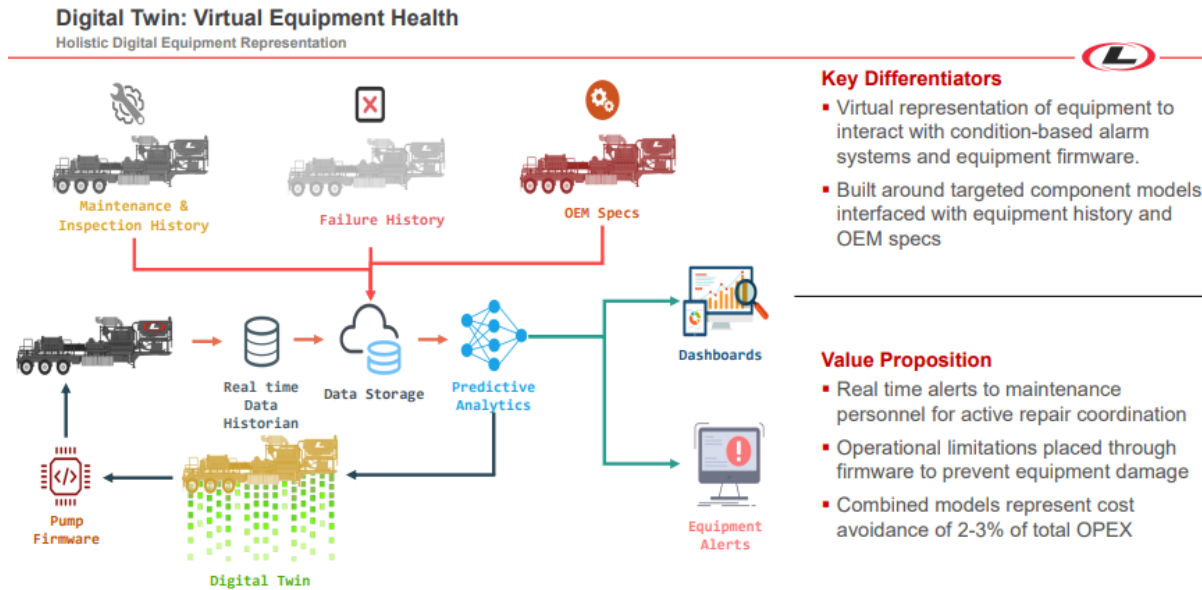
- Data collection through custom applications and integrations
- Equipment telemetry data used to create targeted maintenance models

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##### **Value Proposition**

- Improved job placement and customer satisfaction through reliability improvements
- Preemptive maintenance leading to rebuilds vs. component replacement
- \$10,000-\$100,000 cost avoidance per engine pre-pull
- Overall cost avoidance near 1% of OPEX through predictive engine model alone

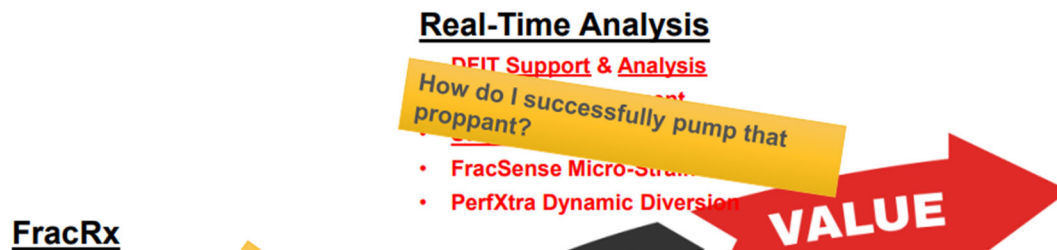
<https://investors.libertyfrac.com/~media/Files/L/Liberty-OilField-IR-V3/reports-and-presentations/investor-day-presentation-june-2021-vf.pdf> [hereinafter *Example Image 1.10*].



<https://investors.libertyfrac.com/~media/Files/L/Liberty-OilField-IR-V3/reports-and-presentations/investor-day-presentation-june-2021-vf.pdf> [hereinafter *Example Image 1.11*].

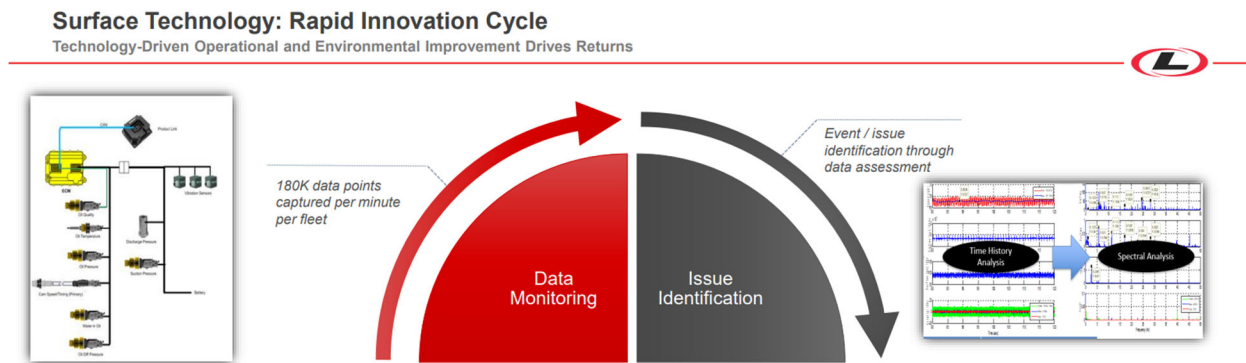
## Liberty Engineering Tools

Spiral Up Workflow and Sticky Customer Relationships



<https://investors.libertyfrac.com/~media/Files/L/Liberty-OilField-IR-V3/reports-and-presentations/investor-day-presentation-june-2021-vf.pdf> [hereinafter *Example Image 1.12*].





<https://investors.libertyfrac.com/~media/Files/L/Liberty-OilField-IR-V3/reports-and-presentations/investor-day-presentation-june-2021-vf.pdf> [hereinafter *Example Image 1.13*].

140. Liberty's continued infringement of the '481 Patent has damaged and will continue to damage Counter-Plaintiffs in an amount to be proven at trial.

141. Unless and until it is enjoined by this Court, Liberty will continue to infringe the '481 Patent, directly or indirectly, or under the doctrine of equivalents. Liberty's infringing acts are causing and will continue to cause Counter-Plaintiffs irreparable harm, for which there is no adequate remedy at law. Under 35 U.S.C. § 283, Counter-Plaintiffs are entitled to a permanent injunction against further infringement.

### **COUNTERCLAIM 16**

#### **(INFRINGEMENT OF U.S. PAT. NO. 11,674,868)**

142. Counter-Plaintiffs incorporate by reference the admissions, denials, and allegations set forth in the preceding paragraphs of this Answer as if fully set forth herein.

143. Liberty's products and/or services that infringe the '868 Patent include the Accused Liberty Products and Services.

144. Liberty has committed act of direct infringement of the '868 Patent under 35 U.S.C. § 271(a) at least by making, using, selling, offering to sell, and/or importing into the United States products and system described herein.

145. Liberty has directly infringed—literally and/or under the doctrine of equivalents—at least Claim 1 of the '868 Patent by making, using, selling, importing and/or offering for sale the Accused Liberty Products and Services.

146. Claim 1 of the '868 Patent recites:

1. A method for adjusting operation of a pump, comprising:

receiving first data indicative of a flow rate;

determining a first operating condition of the pump based, at least in part, on the flow rate;

comparing the first operating condition to a first damage threshold, the first damage threshold corresponding to a damage indication for the pump;

determining the first operating condition exceeds the damage threshold;

adjusting, based at least in part on the determination that the operating condition exceeds the damage threshold, a first operating parameter of a set of operating parameters;

receiving second data indicative of at least one operating parameter of the set of operating parameters;

determining a second operating condition based, at least in part, on the second data;

comparing the second operating condition to a second damage threshold, the second damage threshold corresponding to the damage indication for the pump;

determining the second operating condition exceeds the second damage threshold;

identifying an adjustable operating parameter of the set of operating parameters;

adjusting the adjustable operating parameter;

receiving third data indicative of at least one additional operating parameter of the set of operating parameters;

determining a third operating condition based, at least in part, on the third data;

comparing the third operating condition to a third damage threshold, the third damage threshold corresponding to the damage indication for the pump;

determining the third operating condition exceeds the third damage threshold;

determining additional adjustments to the set of operating parameters are unavailable; and

sending an alert associated with the third operating condition.

147. On information and belief, the Accused Liberty Products and Services include the method of Claim 1, including as demonstrated in *Example Images 1.1, 1.2, 1.5, 1.10–1.13, supra* at paragraphs 90, 101, 139.

148. Liberty's continued infringement of the '868 Patent has damaged and will continue to damage Counter-Plaintiffs in an amount to be proven at trial.

149. Unless and until it is enjoined by this Court, Liberty will continue to infringe the '868 Patent, directly or indirectly, or under the doctrine of equivalents. Liberty's infringing acts are causing and will continue to cause Counter-Plaintiffs irreparable harm, for which there is no adequate remedy at law. Under 35 U.S.C. § 283, Counter-Plaintiffs are entitled to a permanent injunction against further infringement.

#### **DEMAND FOR JURY TRIAL**

150. Defendants hereby demand a trial by jury on all claims so triable.

#### **PRAYER FOR RELIEF**

WHEREFORE, Counterclaim-Plaintiffs respectfully request that this Court enter judgment in their favor and grant the following relief:

- A. Entry of judgment in favor of ProFrac and USWS on all counts;
- B. Liberty takes nothing in this suit;
- C. Liberty be denied all relief requested in its prayer;
- D. A judgment and order that Liberty infringes the Asserted USWS Patents;
- E. A judgment and order that the Asserted USWS Patents are valid and enforceable;

- F. Award ProFrac and USWS damages in an amount adequate to compensate ProFrac and USWS for Liberty's infringement of the Asserted USWS Patents, but in no event less than a reasonable royalty under 35 U.S.C. § 284;
- G. Award enhanced damages pursuant to 35 U.S.C. § 284;
- H. Award ProFrac and USWS pre-judgment and post-judgment interest to the full extent allowed under the law, as well as their costs;
- I. Enter an order finding that this is an exceptional case and awarding ProFrac and USWS their reasonable attorneys' fees pursuant to 35 U.S.C. § 285;
- J. Enter a permanent injunction against all of Liberty's products found to infringe the Asserted USWS Patents;
- K. Award, in lieu of an injunction, a compulsory forward royalty for infringement of the Asserted USWS Patents;
- L. Order an accounting of damages;
- M. Award such other relief, including equitable relief, as the Court may deem appropriate and just under the circumstances.

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Respectfully submitted,

/s/ Rex A. Mann

**Thomas M. Melsheimer**

Texas Bar No. 13922550

TMelsheimer@winston.com

**Rex A. Mann**

Texas Bar No. 24075509

RMann@winston.com

**Ahtoosa A. Dale**

Texas Bar No. 24101443

adale@winston.com

**Alexander M. Nowakowski**

Texas Bar No. 24139851

anowakowski@winston.com

**WINSTON & STRAWN LLP**

2121 North Pearl Street, Suite 900

Dallas, TX 75201

Telephone: (214) 453-6500

Facsimile: (214) 453-6400

**J. Tyler Boyce**

Texas Bar No. 24127214

S.D. Bar No. 3877314

TBoyce@winston.com

**WINSTON & STRAWN LLP**

800 Capitol Street, Suite 2400

Houston, TX 77002

Telephone: (713) 651-2600

Facsimile: (713) 651-2700

**COUNSEL FOR DEFENDANTS**